

CLAIMS

What is claimed is:

1 Claim 1 - A training radar display for decoding and displaying radar signals in
2 different formats comprising:
3 means for providing reference frequencies being variable in accordance with
4 rate of travel fluctuations;
5 means connected to the variable reference frequency means for generating
6 a signal that is phase locked to the variable reference frequency;
7 means for generating directing signals;
8 means coupled to the phase locked signal outputting means and the directing
9 signal's generating means for synthesizing a fine tuned signal based on the output signal
10 of the phase locked signal generating means in accordance with the signals received
11 from the directing signal's generating means;
12 means coupled to the synthesizing means for using the output thereof to
13 generate special purpose timing signals as directed by the directing signal's generating
14 means;
15 means providing video signals;
16 means disposed to receive a video input signal from the video signal
17 providing means for producing a sense directed gain controlled video signal;
18 a plan position indicator converter coupled to receive the video output of
19 the producing means and to process the video output from polar to rectilinear
20 coordinates in accordance with signals received from the directing signal's generating
21 means;
22 means coupled to the plan position indicator converter and to receive the
23 special purpose timing signal from the using means for presenting a display thereof; and
24 a control panel connected to the directing signal's generating means, the
25 video input producing means, the plan position indicator converter and presenting means
26 to provide for input direction from the directing signal generating means.

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Claim 2 - An apparatus according to claim 1 in which the variable reference frequency means is a recording on a tape that has a reference tone recorded thereon and the variable reference frequency thereof is caused by fluctuations of the tape playback rate.

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Claim 3 - An apparatus according to claim *2* in which the video signal providing means is a recording on the same tape as the variable reference frequency means alongside and in the same time frame thereof.

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Claim 4 - An apparatus according to claim *3* in which the phase locked signal outputting means is a phase locked oscillator and the directing signal's generating means is a control computer.

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Claim 5 - An apparatus according to claim *4* in which the synthesizing means is a frequency synthesizer, the using means is a timing generator and the presenting means is a video display unit.

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Claim 6 - An apparatus according to claim *5* in which the phase locked oscillator is fabricated to generate a 10 MHz signal and the frequency synthesizer is composed of elements to generate a 50 KHz signal in response thereto and the control computer.

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Claim 7 - An apparatus according to claim *6* in which the phase-lock outputting means includes means for determining when phase-lock to the variable reference tone has occurred.

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Claim 8 - An apparatus according to claim *7* in which the phase-lock outputting means includes an internal crystal generating a stable reference frequency tone that is coupled to the phase-lock determining means to be actuated when no variable reference tone is being received.

Claim 9 - An apparatus according to claim 8 in which the internal crystal passes a 10 MHz stable signal for the interconnected circuitry of the display control unit to permit operation thereof in other modes than when a variable reference tone is provided.

Claim 10 An apparatus according to claim 8 in which the plan position indicator converter provides analog sweep information and Z axis video information to create the picture on an interconnected display unit.

END